

BURNER FOR NON-SYMMETRICAL COMBUSTION AND METHOD

ABSTRACT OF THE DISCLOSURE

A burner for non-symmetrical combustion generally includes a burner housing enclosing a burner plenum. A fuel conduit extends within the housing and is positioned coaxial with a line spaced from a central axis of the burner. The fuel conduit defines a fuel exit opening. A baffle defining an air conduit extends longitudinally within the housing. The air conduit has an air opening on an opposite side of the burner central axis from the fuel exit opening. At least one oxygen injection lance extends longitudinally within the housing and partially through the air conduit. A burner port block is located adjacent to the baffle and downstream of the air opening, and is in fluid communication with the fuel conduit and the air conduit.